

TrueConf Calendar Connector

Administrator guide

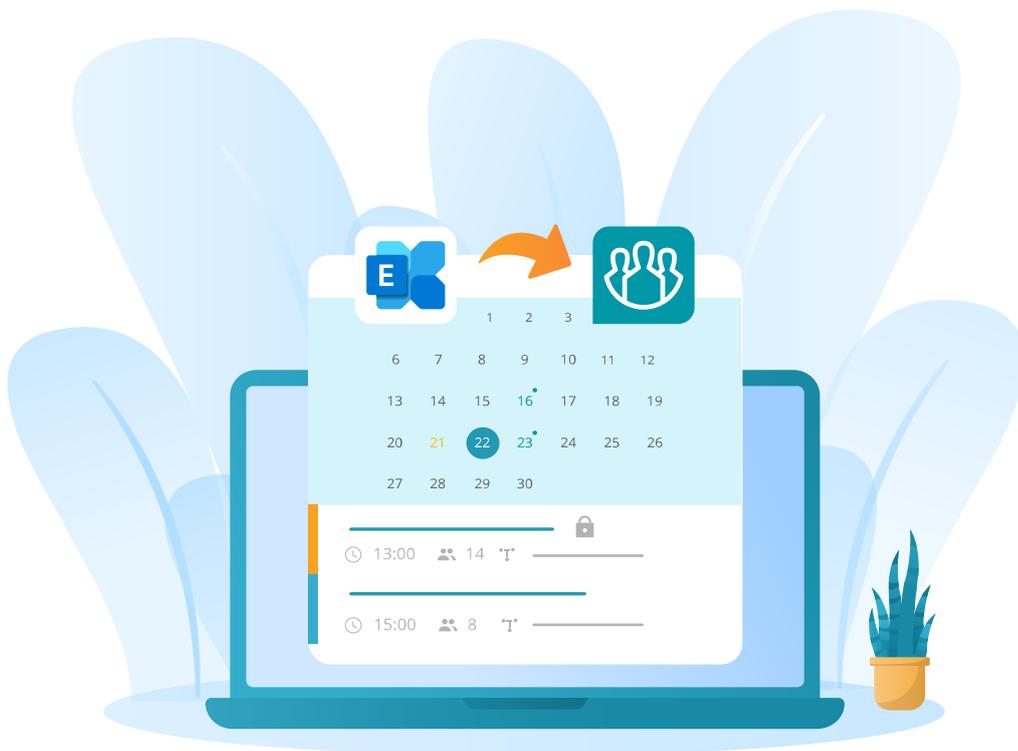


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1. Getting started

1.1. Purpose

TrueConf Calendar Connector is a software solution for synchronizing the Microsoft Exchange corporate calendar with TrueConf Server. This solution enables seamless integration of your corporate calendar with the TrueConf communication system.

Thanks to TrueConf Calendar Connector, you can view and accept invitations to the events created in the Microsoft Exchange corporate calendar directly in your TrueConf application. Additionally, TrueConf Calendar Connector displays the events from the corporate calendar without linking them to video conferences. Now offline events created in the corporate calendar can be tracked in TrueConf client applications.

1.1.1. How it works

TrueConf Calendar Connector synchronizes events from Microsoft Exchange with TrueConf Server. When you create a meeting in your corporate calendar (e.g., in Outlook), the system automatically creates an event in TrueConf Server. Below is a diagram showing how TrueConf Calendar Connector works:



Additionally, if the event is related to a video conference, the software provides a link for participating in the event. Participants receive an invitation with all the details: time, topic, and a direct link for joining the conference.

i Communication between TrueConf Server and Microsoft Exchange is one-way: events from the third-party calendar are displayed in the UI of TrueConf application, but conferences created on the side of the video conferencing server are not added to the corporate calendar.

1.2. Licensing

The features available in TrueConf Calendar Connector depend on your license type. You can review the differences between each version below:

	Бесплатная версия	Стандартная версия
Поддержка протокола для доступа к почте (EWS)	✓	✓
	✓	✓

	Бесплатная версия	Стандартная версия
Доступ на чтение и отображение данных		
Необходимость соединения с регистрационным сервером	✓	✗
Количество учётных записей для синхронизации	50	Соответствует лицензии TrueConf Server
Приоритет синхронизации для пользователей из белого списка	✓	✓
Условия предоставления	Бесплатно	В составе Полного, Полный + и Премиум пакетов технической поддержки

1.3. Features

- Read information about various types of events created in external calendars and display them in the UI of TrueConf solutions.
- Sending invitations about the start of video conferences.
- Delegation involves creating events on behalf of the calendar owner through a trusted representative.
- Real-time synchronization of data about the changes in calendar events and participants' statuses (accepted/declined the invitation).
- Support for API – EWS (Exchange Web Services).

2. Installation and registration

i Important!

- To use TrueConf Calendar Connector, make sure that the machine, where this software is installed, can access the corporate Microsoft Exchange server via **HTTPS** on the port **443**.
- Microsoft Exchange 2016 version **15.01.2507.039** is supported.

2.1. System requirements

TrueConf Calendar Connector can be installed on the same physical or virtual server as TrueConf Server, or on a separate machine. If you choose to install TrueConf Calendar Connector separately, be sure to consider the minimum requirements:

Specification	Value
OS	Dedicated or virtual 64-bit operating system: <ul style="list-style-type: none"> • Microsoft Windows Server 2012/2016/2019/2022 • Debian 11/12 • CentOS Stream 9
CPU	<ul style="list-style-type: none"> • Intel Core i3-8100 (3.6 GHz) • Intel Core i5-7400 (3.0 GHz) • Intel Xeon E-2234 (3.6 GHz)
RAM	8 GB DDR4
Storage	32 GB
TrueConf Server	version 5.5.0

- * For an accurate calculation of system requirements, please contact [technical support](#).

Events are displayed in the calendar of all client applications (TrueConf for Windows, Linux, macOS, Android, iOS & iPadOS).

- i** After TrueConf Calendar Connector is installed, the calendar of TrueConf client application will work in read-only mode. Events can only be created on the Microsoft Exchange side.

2.2. Installation on Windows

i Before installing TrueConf Calendar Connector, ensure that:

- The Windows OS must have a `C:\` drive; otherwise, issues may occur.
- TrueConf Server is pre-installed and registered.

Complete installation process:

1. Download the installer from this link: [TrueConf Calendar Connector for Windows Server 2012+](#).
2. Install the application.
3. Register TrueConf Calendar Connector according to the [instructions below](#).
4. Configure the `config.json` file according to the [Configuration](#) section of the documentation.
5. Open the **Task Manager** (`Ctrl + Shift + Esc`).
6. Go to the section.
7. Locate the **TrueConf Calendar** service and restart it (or start it if it was stopped).
8. Configure the [integration](#) on the TrueConf Server side.

2.3. Installation on Linux

i Before installing TrueConf Calendar Connector, ensure that:

- TrueConf Server is pre-installed and registered.

Installation:

1. Download the installation package [TrueConf Calendar Connector for your OS](#).
 - [TrueConf Calendar Connector for Debian 12](#)
 - [TrueConf Calendar Connector for Debian 11](#)
 - [TrueConf Calendar Connector for CentOS Stream 9](#)
 - [TrueConf Calendar Connector for Debian 12](#)

Open the terminal (command line) in your operating system, and execute the following command.

On Debian

```
sudo dpkg -i <path>
```

sh

- where *<path>* is the path to the **.deb** package.

On CentOS

```
sudo rpm -i <path>
```

sh

- where *<path>* is the path to the **.rpm** package.

1. Register TrueConf Calendar Connector as per the instructions [below](#).
2. Configure the `config.json` file according to the [Configuration](#) section of the documentation.

5. In the terminal, start the TrueConf Calendar Connector service using the command:

```
sudo systemctl start trueconf-calendar.service
```

sh

If the launch limit is exceeded, run this command:

```
sudo systemctl reset-failed trueconf-calendar.service
```

sh

1. Verify that TrueConf Calendar Connector is [working](#).

* In case of any issues, please contact [our technical support](#).

1. Configure the [integration](#) on the TrueConf Server side.

2.4. Product registration

2.4.1. Online registration

! Access to the registration server reg.trueconf.com on the port **4310** (TCP) is required for online registration of the software and its work.

2.4.1.1. Windows

Open the command prompt (**cmd**) as an administrator and activate using the registration key:

```
C:\Program Files\TrueConf\Calendar\tc_calendar.exe --register MY-REG-KEY
```

sh

- where **MY-REG-KEY** is the activation key received after filling out the registration form.

After successful registration you will see: `Your product successfully registered.`
Now you can run `tc_calendar`

```
After successful registration you will see: `Your product  
successfully registered. Now you can run tc_calendar`
```

sh

2.4.1.2. Linux

To do it, you need to run this command:

```
sudo /opt/trueconf/calendar/bin/calendar/tc_calendar --register MY-  
REG-KEY
```

sh

- where *MY-REG-KEY* is the activation key received after filling out the registration form.

After successful registration you will see: `Your product successfully registered.`
Now you can run `tc_calendar`

```
After successful registration you will see: `Your product  
successfully registered. Now you can run tc_calendar`
```

sh

2.4.2. Offline registration

i A free license cannot be registered offline. This form of registration is available only for paid licenses.

Access to the registration server *reg.trueconf.com* on the port **4310** (TCP) is required for online registration of the software and its work.

Ensure that the installation does not have access to *reg.trueconf.com* using the command:

```
ping reg.trueconf.com
```

sh

For offline activation:

1. If there is no connection to the registration server while executing the registration command, a `regoffline.crg` file will be generated as a result.
2. Send the `regoffline.crg` file to your manager using any convenient method.
3. In response, the manager will send you a valid registration file. Place it in the TrueConf Calendar Connector directory.
4. Open the terminal (command line) in your operating system, and execute the following command.

Windows

```
C:\Program Files\TrueConf\Calendar\tc_calendar.exe --offline_reg  
regoffline2.crg
```

sh

Linux

```
sudo /opt/trueconf/calendar/bin/calendar/tc_calendar --offline_reg  
regoffline2.crg
```

sh

1. Upon successful registration, the following will be displayed:

```
Your product successfully registered offline. Now you can run  
tc_calendar
```

sh

3. Initial configuration

* An impersonation account is a service account in Microsoft Exchange to which the administrator has assigned the `ApplicationImpersonation` role. Impersonation allows the caller (in our case, TrueConf Calendar Connector) to act as a user account. This means that the caller can perform operations using the permissions associated with the impersonated account, instead of the permissions of its own account. Such an account is used in scenarios where centralized mailbox management is required, such as in support services or automated systems.

Before configuration you need to generate an encrypted password for the *impersonation account* by executing this command:

Windows

```
C:\Program Files\TrueConf\Calendar\tc_calendar.exe --hash_pass <pass  
word>
```

Linux

```
sudo /opt/trueconf/calendar/bin/calendar/tc_calendar --hash_pass <pa  
ssword>
```

- where *<password>* is the password for the Microsoft Exchange impersonation account. If there are multiple passwords, list them separated by spaces (`pass1 pass2 pass n`).

Each password will have a unique version generated for it. Each line with the encrypted password corresponds to the order they are specified in the command line: `Your encrypted data: dGNf....`

3.1. Configuration file description

To configure TrueConf Calendar Connector, use the file stored at this path: `/opt/trueconf/calendar/etc/calendar/config.json`.

The configuration file mentions the TrueConf Calendar Connector database which is intended for caching data from the Microsoft corporate server. This database helps to reduce the number of requests to the events server, which positively affects performance. The use of an encrypted password for database access ensures the security

of confidential information and prevents unauthorized access. This practice complies with corporate data protection standards.

3.1.1. Database and network port configuration

```
json
{
  "wsPort": 4315,
  "dbConnectionConfig": {
    "host": "localhost",
    "port": 5441,
    "user": "bridge",
    "password":
    "", // by default, there is no password for database access, but if
    one is set, you need to specify the encrypted password previously
    created for the impersonation account here
    "database": "calendar"
  },
}
```

- `"wsPort"` - the port for the WebSocket server operation, which does not require editing unless a different one was specified during installation.
- `"dbConnectionConfig"` - this section is for database connection configuration. The parameters in this section are automatically generated during installation and **MUST NOT** be changed manually.

3.1.2. Conference Setup

```
json
{
  "launchConference": true,
  "temporalConfParticipantsMode": false,
  "cache": {
    "autoSync": false,
    "backward": 2,
    "forward": 3
  }
}
```

- `"launchConference"` is responsible for the automatic start of the conference. TrueConf Calendar Connector sends a request to TrueConf Server when an event starts in Microsoft Exchange.
- `"temporalConfParticipantsMode"` is responsible for adding participants to the "scheduled" list. If `false`, all event participants who have not declined will be added as scheduled.

- "cache" – section used for configuring automatic synchronization settings:
 - "autoSync" – if set to `true`, a full synchronization of calendar events will be performed. If set to `false`, previously created events will not be displayed or synchronized within the selected time period, but other events will be.
 - "backward" – the number of months back from the current date to display recurring events;
 - "forward" – the number of months forward from the current date to display recurring events.

3.1.3. Configuring access to the video conferencing server

```
"productWhitelist": {  
  "tcs": ["server.trueconf.name#vcs"]  
}
```

json

- "server.trueconf.name#vcs" - you need to specify the address (or domain name) of TrueConf Server that will have access to TrueConf Calendar Connector.

3.1.4. Configuring Access to Microsoft Exchange

i On the Microsoft Exchange side, you need to pre-create impersonation accounts permitted to view calendars "on behalf of" other users.

```
"calendarProviders": [  
  {  
    "host": "exchange.domen.com",  
    "path": "/EWS/Exchange.asmx",  
    "port": 443,  
    "type": "ews",  
    "credentials": [  
      {  
        "login": "test",  
        "password": "encrypted_password"  
      }  
    ],  
    "users": [  
      "name@domen.com"  
    ]  
  }  
]
```

json

```
]
}
```

- "calendarProviders" - section for specifying configurations of external calendar synchronization services;
- "host" - the domain where the Microsoft Exchange server is located;
- "path" - the path for accessing the EWS API (default path is specified);
- "port" - the default port for connecting to EWS;
- "type" - the name of the external service (only Microsoft Exchange is supported);
- "credentials" - section for specifying the impersonation account credentials on the Exchange server;
 - "login" - the login for the corporate Exchange account;
 - "password" - encrypted account password. It is generated using the [terminal](#);
- "users" - an array of email addresses of users whose calendars need to be forcibly synchronized when the tc_calendar service starts.

3.2. Maintenance

i Management of TrueConf Calendar Connector on Windows OS is handled through the task scheduler.

3.2.1. How to start the calendar application

After specifying the required parameters described above, start TrueConf Calendar Connector with this command:

```
sudo systemctl start trueconf-calendar.service
```

sh

If the launch limit is exceeded, run this command:

```
sudo systemctl reset-failed trueconf-calendar.service
```

sh

3.2.2. Calendar test

To test the work of TrueConf Calendar Connector, run this command:

```
sudo systemctl status trueconf-calendar.service
```

sh

You will receive one of the responses

active (running) – TrueConf Calendar Connector is working normally.

failed – TrueConf Calendar Connector is NOT working. In this case, try restarting the service using the command described above.



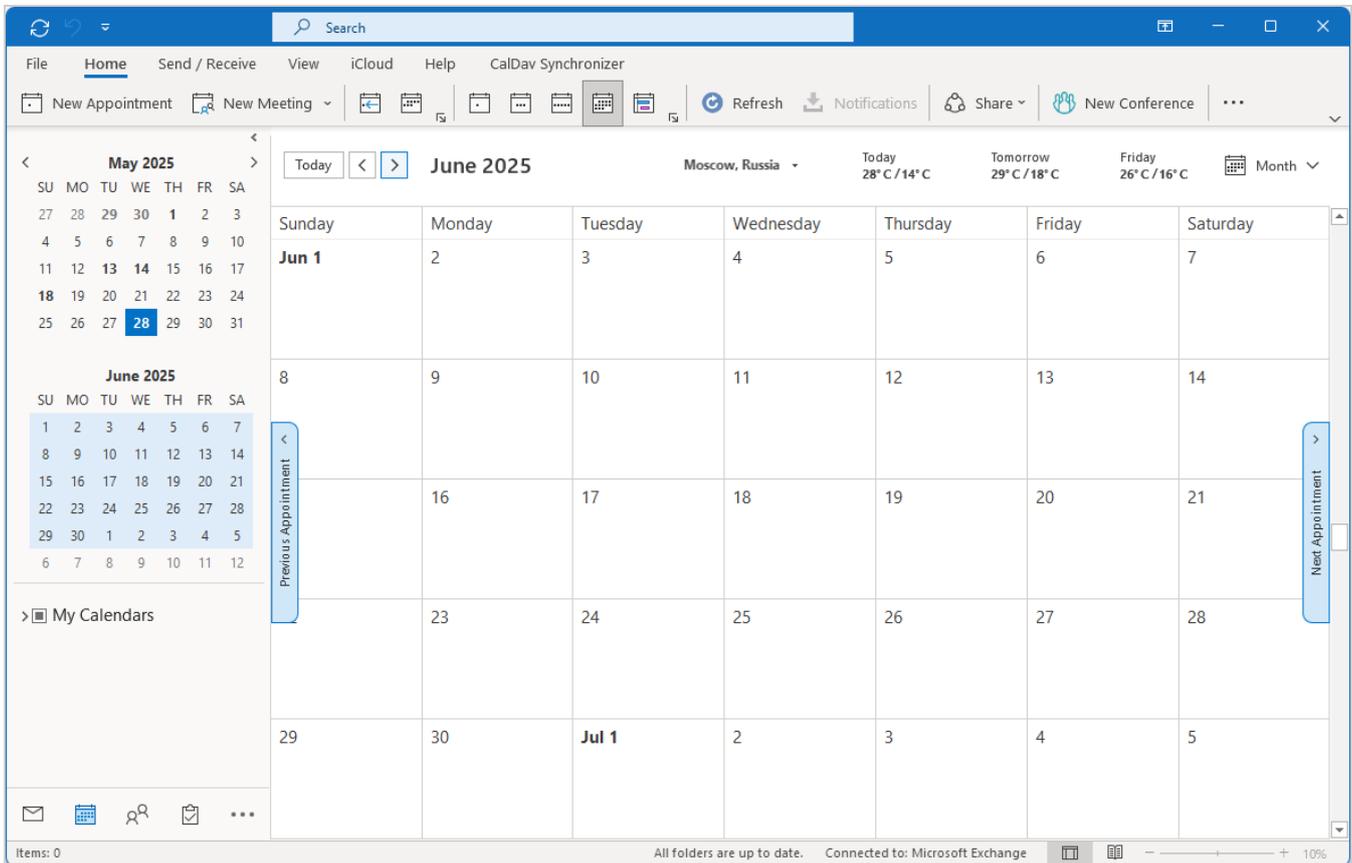
In case of any issues, please contact [our technical support](#).

4. Working with the calendar

4.1. Event scheduling

Events have to be scheduled in your corporate calendar, which can be a desktop application (such as Microsoft Outlook) or its web version in a browser.

1. Click  (in the web interface:  → **Calendar**).



2. Right-click on the selected date and choose **New Appointment**.

You will see the UI for creating a meeting. Here, you can:

The screenshot shows the 'Appointment' window in Microsoft Outlook. The title bar reads 'Marketing department meeting - Appointment'. The ribbon includes 'File', 'Appointment', 'Scheduling Assistant', 'Insert', 'Format Text', 'Review', and 'Help'. The 'Appointment' ribbon is active, showing options for 'Show As' (set to 'Busy'), 'Reminder' (set to '15 minutes'), and 'TrueConf Meeting'. The main form contains the following fields:

- Title:** Marketing department meeting
- Start time:** Sat 6/28/2025, 8:00 AM. Includes checkboxes for 'All day' and 'Time zones'.
- End time:** Sat 6/28/2025, 8:30 AM. Includes a 'Make Recurring' button.
- Location:** (Empty text box)

Below the form, the text 'Discussion of the work done last week.' is visible in the body of the appointment.

- Set your status during the meeting which will be displayed to Microsoft Exchange users
- Create a reminder
- Specify the event name
- Set the event time and configure [its repetition](#)
- Provide additional information about the event.

1. Add event participants by clicking  (in the web interface: **People** → **Add people**). In Microsoft Outlook, users can be divided into different groups by their attendance status as **Required** and **Optional**. This information will be displayed in TrueConf client application. However, these statuses are just for reference purposes. The conference will start automatically, regardless of whether the **Required** participants have joined or not.

! An event will be displayed in the calendar of TrueConf client application, if the person specified in the `"users"` [section](#) is added to the list of invited participants or is the creator of the event.

5. Click **Save & Close** to create the event.

When the event is created, it will be immediately displayed in the calendar of participants' client applications.

June 2025

MON	TUE	WED	THU	FRI	SAT	SUN
26	27	28	29	30	31	1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	1	2	3	4	5	6

Marketing department meeting
🕒 08:00 – 08:30

If a **gray** indicator is displayed on the left side of an event, there is no TrueConf conference scheduled for this event.

Click on the event name to view the details:

← **Task information**

Title: Marketing department meeting

My response: Accepted

Start time: 28.06.2025, 08:00

End time: 28.06.2025, 08:30

Discussion of the work done last week.
Show more ▾

Participants (2):

- P** Postman
Organizer
- M** mail_test169
Required, No response

- Event name
- Your response to the event invitation

- Time and date of the event
- Additional information
- List of participants with their responses to the event invitation.

4.1.1. Event with a conference

To create events with conferences, you need to [install the TrueConf add-in for Outlook](#).

* If you are a Microsoft Exchange administrator, refer to the [setup guide for configuring the add-in on the side of the mail server](#).

To link a calendar event to a conference, click the **TrueConf Meeting** button when creating the event. This will open the add-in menu for creating a conference.

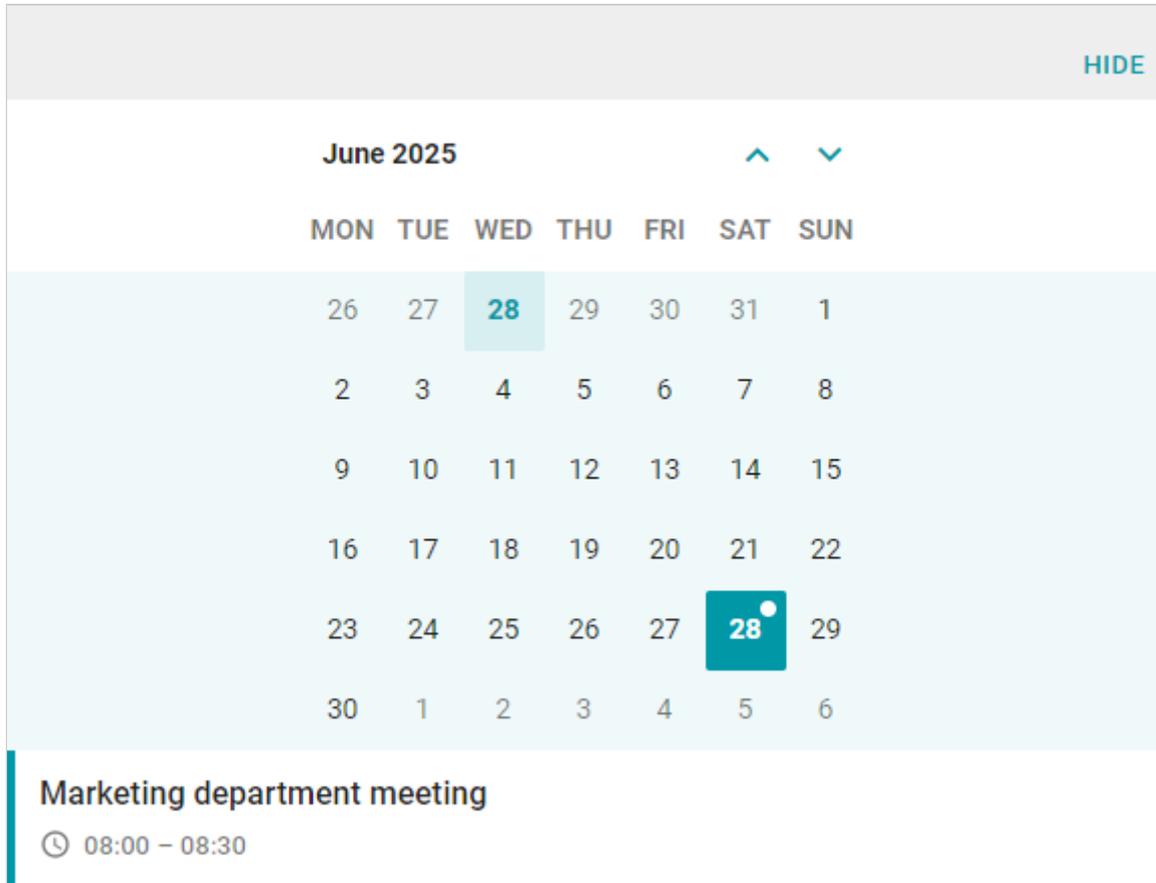
The image shows three sequential screenshots of the TrueConf for Outlook add-in interface:

- First screenshot:** Titled "TrueConf for Outlook", it shows a "Select conference type" section with two options: "Private conference" (described as a secured conference for authenticated users) and "Public conference (webinar)" (described as accessible to guests). At the bottom, it shows the user name "Jane Flowers" and a "SIGN OUT" button.
- Second screenshot:** Titled "TrueConf for Outlook", it shows a "Private conference" selected. Under "Mode", there are four options: "Smart meeting" (6x420), "Moderated role-based" (12x220), "All on screen" (9x9), and "Video lecture" (1x49). At the bottom, it shows the user name "Jane Flowers" and a "SIGN OUT" button.
- Third screenshot:** Titled "TrueConf for Outlook", it shows "Advanced settings" and "Participant management" sections. Under "Advanced settings", "Use PIN to enter the conference" is checked, and the PIN is "879651". Under "Participant management", "Mute participants on entry" and "Stop participants' video on entry" are checked. At the bottom, it shows the user name "Jane Flowers" and a "SIGN OUT" button.

- Specify the type: **Private conference** or **Public conference (webinar)**
- Select the conference mode:
 - **Smart meeting**
 - **Moderated role-based**
 - **All on screen**
 - **Video lecture.**
- If necessary, set the parameters in the **Advanced settings** and **Participant management** sections.

Click **New TrueConf Meeting** to link the Microsoft Exchange event to the conference.

The event linked to a conference will be marked with a **turquoise** indicator.



On the right side of the event name, the **Join** button will be displayed.

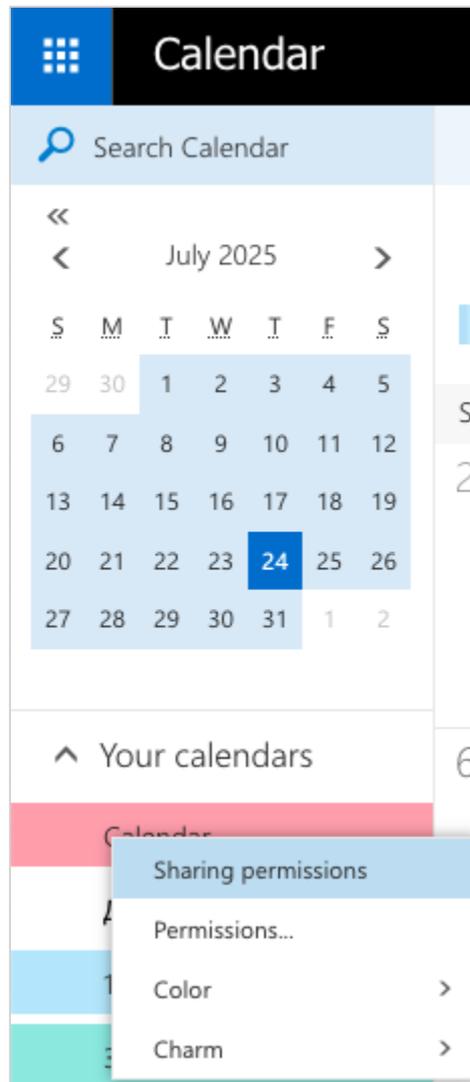
4.1.2. Delegation of ownership rights

TrueConf Calendar Connector supports delegating event ownership rights to another user. This feature allows events to be created in Microsoft Exchange on your behalf. Your personal secretary or assistant can act as the delegated individual.

The secretary creates an event in the Microsoft Exchange calendar, invites participants, and sets the date. All you need to do is join the meeting. You are listed as the organizer in the event details. Invited users will not know that the event was created by the secretary.

How to delegate access to your calendar in the web version of Microsoft Outlook:

1. Go to the **Calendar** tab.
2. In the sidebar on the left, right-click on your calendar and select **Sharing permissions**.



3. Enter the email address of the user you want to grant calendar access to.
4. In the list of permissions, select **Delegate** and click **Send**.

Send Discard

Delegates will receive copies of all your invitations.

Share with:

mail_test 169
mail_test169@trust1.loc

Let delegate view private events

Subject:
I'd like to share my calendar with you

Calendar:
Calendar

Delegate

- Availability only
- Limited details
- Full details
- Editor
- ✓ Delegate

The delegated user now has access to your calendar and can create events on your behalf.

4.2. Additional event settings

4.2.1. How to reschedule events

If you are the event organizer, you can quickly change the event date. In the corporate calendar, select the event and drag it to another date by holding the left mouse button.

4.2.2. Repeating event

You can configure repetition settings for frequently held events. To do it, click **Make Recurring** when creating or editing an event. You will see the menu with the following options:

Appointment Recurrence ✕

Appointment time

Start: ▾

End: ▾

Duration: ▾

Recurrence pattern

Daily
 Recur every week(s) on:
 Sunday
 Monday
 Tuesday
 Wednesday

Weekly
 Thursday
 Friday
 Saturday

Monthly
 Yearly

Range of recurrence

Start: ▾
 End by: ▾

End after: occurrences

No end date

- Repeat **daily, weekly, monthly, and annually**
- Set the repetition pattern, for example: *repeat every two weeks*
- Set the repetition limit: until a specific date, a certain number of repetitions, or no limit.

Below you can see the example of a repeating event: *weekly on Mondays*.

June 2025							^ ▾
MON	TUE	WED	THU	FRI	SAT	SUN	
26	27	28	29	30	31	1	
2	3	4	5	6	7	8	●
9	10	11	12	13	14	15	●
16	17	18	19	20	21	22	●
23	24	25	26	27	28	29	●
30	1	2	3	4	5	6	

4.2.3. Event cancellation

If the event, which includes a participant who was added to the "users" section, is cancelled in the corporate calendar, it will be marked as **Canceled**.

[HIDE](#)

June 2025 ^ v

MON	TUE	WED	THU	FRI	SAT	SUN
26	27	28	29	30	31	1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	1	2	3	4	5	6

Canceled: Marketing department meeting
🕒 08:00 – 08:30